

## Patent Abstracts of Japan

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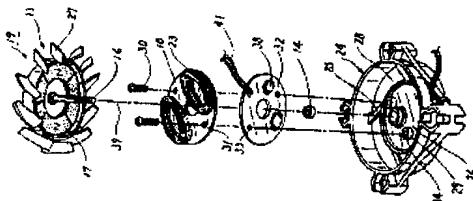
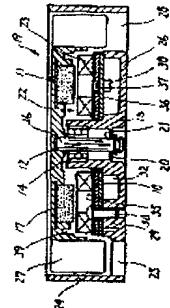
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TITLE : DISC TYPE BRUSHLESS MOTOR



**ABSTRACT :** PURPOSE: To prevent contact between a rotor and a stator and eliminate contact between a rotary shaft and a tilting angle regulating projection at all times by a method wherein the titling angle regulating projection, regulating the rotary shaft so as not to be tilted radially by a predetermined angle or a larger one, is formed integrally with the lower end of a bearing house with a fine radial gap between the rotary shaft and the projection.

CONSTITUTION: A rotor 11 is constituted so that the center of gravity 12 of the rotor 11 including a magnet rotor 17 is positioned at the upper part of a bearing house 13 and a ball bearing 14 is provided at the upper part of the bearing house 13 to support the center of gravity 12 of the rotor 11 with the ball bearing while a tilting angle regulating projection 20, regulating the rotary shaft 16 so as not to be tilted radially by a predetermined angle or a larger one, is formed integrally with the lower end of the bearing house 13 through a fine radial gap 21 between the rotary shaft 16 and the projection 20. The tilting angle regulating projection 20 is contacted with the rotary shaft 16 to support it only when the unsteady phenomenon of the rotary shaft 16 is generated upon starting a motor 19 and the like. According to this method, the breakage of an armature coil 23 due to the contact of a coreless stator armature stator 22 may be prevented.

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